

Appl. No. 09/703,542  
Resp./Amdt. dated Sep. 23, 2004  
Reply to Office Action of 06/30/2004

### REMARKS/ARGUMENTS

There are no amendments to the specification, claims or drawings herein.

In the Claims, Claims 1-20 are pending and remain in the application. Claims 1 and 10-12 are rejected. Claims 2-9, and 13-20 are objected to. Reconsideration is respectfully requested.

In a previous Office Action mailed Jan. 29, 2004 (hereinafter 'Previous Action'), the Examiner objected to the title of the invention as not being "clearly indicative of the invention to which the claims are directed". Applicant argued in a previous Response/Amendment filed Apr. 12, 2004 (hereinafter 'Previous Response') that the title was clearly indicative of the invention. In the present Office Action mailed Jun. 30, 2004 (hereinafter 'Present Action'), the newly assigned Examiner did not mention the objection to the title or Applicant's arguments in response thereto. Applicant assumes from the Examiner's silence that the objection to the title has been withdrawn.

Furthermore, in the Previous Action, the Examiner rejected Claim 1 under 35 U.S.C. 102(b) as being anticipated by Hershey et al., U.S. Patent No. 5,793,753 (hereinafter 'Hershey et al.'). In addition, the Examiner rejected Claims 2-3, 5-7, 9-14, 16-18 and 20, under 35 U.S.C. 103(a) as being unpatentable over Hershey et al. in view of one or more of Galloway (U.S. Patent No. 5,430,709), Egbert (U.S. Patent No. 6,356,551), and Ahearn et al. (U.S. Patent No. 5,926,463). In the Previous Response, Applicant traversed each of the rejections and offered arguments in rebuttal.

In the Present Action, the Examiner found Applicant's arguments "with respect to claims 2-9 and 13-20" to be persuasive and withdrew the rejections. Applicant appreciates the Examiner's withdrawal of the rejections under 35 U.S.C. 103(a), except that only Claims 2-3, 5-7, 9-14, 16-18 and 20 were actually rejected thereunder, whereas Claims 4, 8, 15 and 19 were objected to.

Also in the Previous Response, Applicant amended the specification to correct minor typographical errors and language informalities. Applicant assumes that the

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Examiner has accepted and entered the specification amendments from the Previous Response even though there is no indication to that effect in the Present Action.

In the Present Action, the Examiner rejected Claims 1 and 10-12 under 35 U.S.C. 102(b) as being anticipated by Hershey et al.

Applicant traverses the rejection on the grounds that the Examiner failed to establish a *prima facie* case of anticipation with respect to Hershey et al. In particular, Applicant submits that Hershey et al. do not disclose, explicitly or implicitly, "each element of the claim under consideration" (*W.L. Gore & Associates v. Garlock*, 721 F.2d 1540, 220 USPQ 303 (Fed. Cir. 1983)) and/or "arranged as in the claim" (*Lindemann Maschinenfabrik GmbH v. American Hoist & Derrick Co.*, 730 F.2d 1452, 221 USPQ 481, 485 (Fed. Cir. 1984)) as required by the Federal Circuit for *prima facie* anticipation under 35 USC 102.

With regard to Claim 1, the Examiner contended that Hershey et al. disclose, "a telecommunications network management observation and response system" that includes "interpreter workstations" associated with and receiving data from "nonintrusive and passive" probes or probe arrays within the network. The Examiner further contended that Hershey et al. disclose, "[t]he workstation interpreter processes the data received from the probes to provide the data to the system manager in an easily viewable format". The Examiner appears by way of parenthetical expression to contend that the contended disclosure by Hershey et al. is equivalent to a "computational unit for receiving collected data packets and producing a data stream characterization from the set" in an attempt to show equivalence to that recited in Applicant's Claim 1. The Examiner further appears to contend, again using a parenthetical expression, that a contended disclosure by Hershey et al. including, "the workstation interpreter can be used by the system manager to change or reset various network configuration parameters such as alarm set points" corresponds to or is somehow equivalent to Applicant's Claim 1 recitation, "configuration processing unit for generating a system configuration for the communications network from the data stream characterization".

Contrary to the Examiner's contentions, Hershey et al. do not disclose each element recited in Applicant's Claim 1. For example, Hershey et al. do not disclose

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or even suggest a 'data stream characterization' or 'generating a system configuration' as recited in Applicant's Claim 1 and defined by Applicant's specification.

With respect to 'data stream characterization', Applicant, acting as his/her own lexicographer, clearly defined a "data stream characterization" in the specification of the instant application, as filed, to be "a set of data stream parameters derived from measurements" taken on a set of collected data packets, the data stream characterization representing "the network traffic at a specific point in the network" (Page 9, lines 17-22 of Applicant's Specification). Furthermore, according to Applicant's definition, the data stream characterizations "are produced such that the statistical probability of any two different data streams having the same characterization at the same point in time is arbitrarily small. Therefore, data stream characterizations act as unique markers or fingerprints for tracking the flow of data through the network" (Page 9, line 25 to Page 10, line 3, Applicant's specification).

In addition, Applicant's specification, as filed, stipulates that a "data stream characterization comprises a sequence or string of values ..." and that the characterization produced by a characterization computational unit (CCU) "utilize an invariant portion of the collected data packets" (see Page 11, lines 19-24, Applicant's specification). Moreover, Applicant provides at least four different embodiments of data stream characterizations including a hash characterization, a count characterization, an interval characterization, and a multi-packet characterization (see Page 14, starting on line 27 of Applicant's specification) that exhibit the features of data characterizations, as defined by Applicant.

In contrast, Hershey et al. never disclose or suggest that processing by the workstation interpreter may represent the network traffic at a specific point in the network or that the processing produces results in which the statistical probability of any two different data streams having the same characterization at the same point in time is arbitrarily small. Moreover, there is nothing in the teachings of Hershey et al. suggestive to one skilled in the art that the result of the workstation interpreter processing can act as unique markers or fingerprints for tracking the flow of data through the network.

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Moreover, at Col. 3, lines 56-61, Hershey et al. disclose that the workstation interpreter processing provides a parameter value that is "preferably a numerical value" either being "computed from a formula" or being "the exact numerical value of the received parameter". This disclosure is in direct opposition to the stipulation in Applicant's specification that the data stream characterization comprises a sequence or string of values. Similarly, there is no mention in Hershey et al. of using an invariant portion of the collected data packets, as well as no mention of any of the specific data stream characterizations embodiments, as described in Applicant's specification. As such, one skilled the art simply would not and could not confuse or find equivalent that disclosed by Hershey et al. and the 'data stream characterization', as defined and claimed by Applicant.

In a *Response to Arguments* section of the Present Action, the Examiner contended that Applicant's definition of the term 'data stream characterization' "simply states that it is derived from measurements and provides no additional detail about what is done with the results". The Examiner further contended, "Hershey clearly uses the workstation interpreter to process data received from the probes, which is equivalent to the definition provided by the applicant" (Item 10, pages 4-5, Present Action). Applicant earnestly traverses these contentions by the Examiner.

Contrary to that contended by the Examiner and as is detailed hereinabove, Applicant's specification not only specifically and clearly defines the term 'data stream characterization' but also provides several examples of implementing such a characterization. In particular, the definition goes well beyond merely stating that the 'data stream characterization' is "derived from measurements". See, for example, at least Page 9, line 14 to page 10, line 5; Page 11, lines 19-24; and Page 14, starting on line 24, to at least Page 23, of Applicant's specification. Moreover, as is discussed at length hereinabove, the definition of the term 'data stream characterization' provided in Applicant's specification clearly and unambiguously distinguishes the term from that disclosed by Hershey et al. While Applicant concedes that Hershey et al. disclose using a workstation interpreter to process data received from probes, Applicant respectfully submits that the Examiner's indication of an equivalence between that taught by Hershey et al. and the 'data stream characterization', as defined by Applicant's specification as filed, is simply incorrect.

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In addition, in Item 10 of the *Response to Arguments* section, the Examiner reminded Applicant that "although the claims are read in light of the specification, limitations from the specification are not read into the claims, with respect to Applicant "acting as his/her own lexicographer".

Applicant respectfully submits that the point of "acting as his/her own lexicographer" is not to read limitations from the specification into the claims as contended by the Examiner, but instead is to provide a specific meaning, clarification, and/or interpretation of terms used in claims, as well as to facilitate claim drafting using concise descriptive language. As stated in the MPEP §2173.01, "[a] fundamental principle contained in 35 U.S.C. 112, second paragraph is that applicants are their own lexicographers. They can define in the claims what they regard as their invention essentially in whatever terms they choose so long as any special meaning assigned to a term is clearly set forth in the **specification**" (emphasis added). Moreover, "[c]onsistent with the well-established axiom in patent law that a patentee or applicant is free to be his or her own lexicographer, a patentee or applicant may use terms in a manner contrary to or inconsistent with one or more of their ordinary meanings if the written description clearly redefines the terms. See, e.g., *Process Control Corp. v. HydReclaim Corp.*, 190 F.3d 1350, 1357, 52 USPQ2d 1029, 1033 (Fed. Cir. 1999)" (MPEP §2173.05(a)(III)). Thus, during examination, while "the claims must be interpreted as broadly as their terms reasonably allow", it is not only permissible but often necessary for the Examiner to use definitions from the specification for terms appearing in the claims in order to properly interpret claim language (see MPEP §2111.01).

Applicant submits that the term 'data stream characterization' is clearly defined in the specification on at least Page 9, line 14 to page 10, line 5, and Page 11, lines 19-24, and implementation thereof on Page 14, starting on line 24, to at least Page 23, of Applicant's specification. Additionally, the term's usage in the Applicant's claims is consistent with both the definition and the term's usage in the specification. As such, Applicant respectfully submits that it is improper for the Examiner to contend otherwise and further, to refuse to afford appropriate weight to the term's definition clearly set forth in the specification, especially when the term's definition clearly distinguishes that which is claimed by Applicant over that taught by Hershey et al.

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With respect to 'generating a system configuration', Hershey et al. neither disclose nor suggest generating a system configuration, as defined by Applicant's specification, contrary to that contended by the Examiner. In particular, Applicant defines a 'system configuration' as a "configuration of the virtual circuits in the network" (Page 9, line 15 and lines 23-24, Applicant's specification, as filed).

While Hershey et al. do disclose monitoring "several network functions including network configurations", Hershey et al. never mention virtual circuits or a configuration thereof. It is possible that the Examiner may have confused the term 'network configuration', as employed by Hershey et al., with the term 'system configuration' as used by Applicant in Claim 1 and the specification. In fact, the two terms are unrelated and refer to two different things.

Specifically, Hershey et al. employ the term "network configuration" to refer to data structures or parameters thereof within the monitored network. For example, Hershey et al. disclose that "[n]etwork configuration includes such parameters as network signaling and VT1.5 mapping for SONET" (Col. 4, lines 46-48). SONET is a high-speed optical network standard. "Network signaling" and "VT1.5 mapping" refer to features in the SONET standard that allow for multiplexing or packaging relatively lower speed data from multiple communication sources into a SONET data payload. For example, 'VT1.5 mapping' refers to a virtual tributary (VT) structure within the SONET data payload. The VT1.5 mapping essentially defines a data substructure within a SONET data frame that can receive and hold data from a 1.5 Mb/s signal. The VT1.5 mapping is unrelated to a physical structure of the network as well as to a connection topology or virtual connection configuration of the network. As such, there is no relationship between the 'network configuration' of Hershey et al. and the 'system configuration', comprising a configuration of the virtual circuits in the network, as defined and claimed by Applicant.

In Item 9 of the *Response to Arguments* section of the Present Action (page 4), the Examiner contended "Hershey has clearly taught that the workstation interpreter can be used by the system manager to change or reset various network configuration parameters". The Examiner further contended, "[c]learly changing and resetting

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parameters is equivalent to the limitation of generating a system configuration as claimed”.

However, contrary to that contended by the Examiner, the phrase ‘changing and resetting parameters’ is neither equivalent to nor even related to the phrase ‘generating a system configuration’, as recited in Applicant’s Claim 1. Generating a system configuration involves producing a configuration of the virtual circuits in the network, as described in Applicant’s specification. On the other hand, ‘changing and resetting network configuration parameters’, according to Hershey et al., merely adjusts parameters of the network (e.g., alarm set points).

Specifically, Hershey et al. disclose, “[t]he interpreter software compares the parameter value [i.e., network configuration parameter] to a reference value ... to determine whether the numerical value deviates from the reference value by more than a preselected threshold” (Col. 3, lines 61-65, Hershey et al.). Hershey et al. further disclose, “the workstation software is responsive to the out-of-threshold indication for automatically effecting a configuration change to a device on the telecommunications network” and “[t]he configuration change is effective to correct the condition that caused the monitored function parameter to deviate from the reference value ...” (Col. 4, lines 2-8, Hershey et al.).

Clearly, that taught by Hershey et al. with respect to ‘changing and resetting network configuration parameters’ deals with an operation of devices on the network and not with virtual circuits of the configuration thereof. As such, there is respectfully no equivalence whatsoever between that taught by Hershey et al. and ‘generating a system configuration’, as claimed by Applicant, contrary to the Examiner’s contention.

Regarding Claim 10-12, the Examiner contended, “Hershey et al. teaches the system described in reference to claim 1 above and also teaches that the workstation interpreter includes software that evaluates parameters received from the network probe to provide a parameter value represented thereof”. The Examiner further contended, “[t]he interpreter software compares the parameter value to a reference value which is stored in a look-up table or other data storage method to determine whether the numerical value deviates from the reference value by more than a

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preselected threshold". Although not clear to Applicant, the Examiner apparently contends that there is some equivalence between these contended teachings of Hershey et al. and the Examiner's respective parenthetical phrases "recording peripheral ... packets" and "compare data stream ... pairs", with respect to Applicant's Claims 10-12.

Contrary to the Examiner's apparent contentions, Hershey et al. do not disclose each element recited in Applicant's Claims 10-12. As discussed at length hereinabove, Hershey et al. do not disclose or even suggest a 'data stream characterization' and 'system configuration', as defined by Applicant's specification and recited in Applicant's Claims 1 and 11. As such, Hershey et al. fail to disclose "wherein the **system configuration** is generated by successively comparing **data stream characterizations** to find matching pairs of characterizations" as recited in Applicant's Claim 10 (**emphasis added**). Furthermore, Hershey et al. do not and respectfully cannot disclose one or both of "determining a data stream characterization from each the sets of collected data packets" and "comparing the data stream characterizations to one another to identify matching characterizations", as recited in Applicant's Claim 11. Similarly, Hershey et al. fail to disclose that recited in Applicant's Claim 12 for want of a disclosure regarding 'data stream characterization'.

Moreover, notwithstanding the absence of 'data stream characterizations' and 'system configuration' in the teachings of Hershey et al., the Examiner's reference to "[t]he interpreter software compares the parameter value to a reference value ..." in Hershey et al. is unrelated to 'comparing data stream characterizations', as recited in Applicant's Claims 10 and 11. In particular, Hershey compares the parameter value (i.e., a number) to a reference value (i.e., another number) to "determine whether the numerical value deviates from the reference value by more than a preselected threshold" (Col. 3, lines 63-65, Hershey et al.). 'Comparing', according to Hershey et al., simply determines whether or not a difference of two numbers (i.e., parameter value and reference value) exceeds another number (i.e., the threshold). As such this comparison is essentially equivalent to a 'greater than' comparison.



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By contrast, Applicant's Claim 10 recites, in part, "comparing ... to find matching pairs of characterizations" while Applicant's Claim 11 recites, in part, "comparing ... to one another to identify matching characterizations". According to Applicant's Claims 10 and 11, 'comparing' assesses whether two strings equal one another. Such an operation is decidedly different both in implementation and in outcome from a 'greater than' comparison disclosed by Hershey et al. Moreover, it has been made clear hereinabove that the term 'parameter values', according to Hershey et al., is in no way equivalent to 'data stream characterizations', according to Applicant's specification. As such, the comparisons cannot be the same since the objects of the comparisons are not equivalent.

Regarding Applicant's Claim 12, in addition to that discussed hereinabove with respect to and 11, Hershey et al. do not disclose "recording peripheral information associated with the data stream characterization", as recited in Claim 12, if, for no other reason than, Hershey et al. do not disclose 'data stream characterizations'. Moreover, Hershey et al. never disclose or even suggest "an invariant portion of the set of collected data packets" or "computing an array of values" therefrom.

It is respectfully submitted that the Examiner has failed to establish a *prima facie* case of anticipation of Claim 1 and 10-12 with respect to Hershey et al. In particular, the Examiner failed to show that there is "no difference between the claimed invention and the reference disclosure, as viewed by a person of ordinary skill in the field of the invention" as required by the Federal Circuit. *Scripps Clinic & Research Found. V. Genentech Inc.*, 927 F.2d 1565, 18 USPQ 2d 1001, 1010 (Fed. Cir. 1991). In addition, Claim 10 is dependent from Claim 1 and Claim 12 is dependent from Claim 11. As such, even without that recited exclusively in Claims 10 or 12, having failed to establish *prima facie* anticipation of Claims 1 and 11, the Examiner has similarly failed to establish *prima facie* anticipation of respective Claims 10 and 12. Therefore, the rejection of Claims 1 and 10-12 under 35 U.S.C. 102(b) is unsupported and must be withdrawn for at least the reasons set forth hereinabove.

Applicant appreciates the Examiner's recognition of the allowability of Claims 2-9 and 13-20 if rewritten in independent form. However, in view of Applicant's

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arguments hereinabove with respect to the rejections of base Claims 1 and 11, as well as dependent Claim 12, under 35 U.S.C 102, Applicant respectfully declines to amend Claims 2-9 and 13-20 at this time. Reconsideration is respectfully requested.

In summary, Claims 1-20 are pending. Claims 1 and 10-12 were rejected and Claims 2-9 and 13-20 were objected to. Applicant submits that Claims 1-20 are in condition for allowance. It is respectfully requested that Claims 1-20 be allowed, and that the application be passed to issue at an early date.

Should the Examiner's action be other than allowance of Claims 1-20, the undersigned respectfully requests a telephone call from the Examiner to discuss further consideration that would expedite the prosecution of the application. Moreover, should the Examiner have any questions regarding the above, please contact the undersigned, J. Michael Johnson, telephone number (775) 849-3085, or Robert T. Martin, Attorney for Applicant, Registration No. 32,426 at Agilent Technologies, Inc., telephone number (650) 485-7533.

Respectfully submitted,  
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J. Michael Johnson

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